ATTORNEY DOCKET NO. 07083.0008U5

SEQUENCE LISTING

```
<110> Dixon, Eric
Hutchins, Jeff T.
Kuettner, Klaus E.
Schmid, Thomas M.
Schumacher, Barbara L.
Su, Jui-Lan
```

<120> SUPERFICIAL ZONE PROTEIN AND METHODS OF MAKING AND USING SAME

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<130> 07083.0008U5
<150> 60/258,920
<151> 2000-12-29
<160> 11
<170> FastSEQ for Windows Version 4.0
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Met Ala Trp Lys Thr Leu Pro Ile Tyr Leu Leu Leu Leu Ser Val
                                    10
Phe Val Ile Gln Gln Val Ser Ser Gln Asp Leu Ser Ser Cys Ala Gly
                                25
Arg Cys Gly Glu Gly Tyr Ser Arg Asp Ala Thr Cys Asn Cys Asp Tyr
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```

L.

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```
Asn Cys Gln His Tyr Met Glu Cys Cys Pro Asp Phe Lys Arg Val Cys
                        55
Thr Ala Glu Leu Ser Cys Lys Gly Arg Cys Phe Glu Ser Phe Glu Arg
Gly Arg Glu Cys Asp Cys Asp Ala Gln Cys Lys Lys Tyr Asp Lys Cys
Cys Pro Asp Tyr Glu Ser Phe Cys Ala Glu Val Lys Asp Asn Lys Lys
                                105
            100
Asn Arg Thr Lys Lys Pro Thr Pro Lys Pro Pro Val Val Asp Glu
                            120
Ala Gly Ser Gly Leu Asp Asn Gly Asp Phe Lys Val Thr Thr Pro Asp
                        135
                                            140
Thr Ser Thr Thr Gln His Asn Lys Val Ser Thr Ser Pro Lys Ile Thr
                                        155
                    150
Thr Ala Lys Pro Ile Asn Pro Arg Pro Gln Ser Ser Pro Asn Ser Asp
                165
                                    170
Thr Ser Lys Glu Thr Ser Leu Thr Val Asn Lys Glu
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<223> Description of Artificial Sequence; note =
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Pro Thr Thr Ile His Lys Ser Pro Asp Glu Ser Thr Pro Glu Leu Ser 10 Ala Glu Pro Thr Pro Lys Ala Leu Glu Asn Ser Pro Lys Glu Pro Gly Val Pro Thr Thr Lys Thr Pro Ala Ala Thr Lys Pro Glu Met Thr Thr 40 Thr Ala Lys Asp Lys Thr Thr Glu Arg Asp Leu Arg Thr Thr Pro Glu 55 Thr Thr Thr Ala Ala Pro Lys Met Thr Lys Glu Thr Ala Thr Thr Thr 70 75 Glu Lys Thr Thr Glu Ser Lys Ile Thr Ala Thr Thr Thr Gln Val Thr 90 85 Ser Thr Thr Thr Gln Asp Thr Thr Pro Phe Lys Ile Thr Thr Leu Lys 105 Thr Thr Leu Ala Pro Lys Val Thr Thr Thr Lys Lys Thr Ile Thr Thr 120 Thr Glu Ile Met Asn Lys Pro Glu Glu Thr Ala Lys Pro Lys Asp Arg' 135 Ala Thr Asn Ser Lys Ala Thr Thr Pro Lys Pro Gln Lys Pro Thr Lys 150 155 Ala Pro Lys Lys Pro Thr Ser Thr Lys Lys Pro Lys Thr Met Pro Arg 165 170 Val Arg Lys Pro Lys Thr Thr Pro Thr Pro Arg Lys Met Thr Ser Thr 180 185

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```
Met Pro Glu Leu Asn Pro Thr Ser Arg Ile Ala Glu Ala Met Leu Gln
                            200
Thr Thr Thr Arg Pro Asn Gln Thr Pro Asn Ser Lys Leu Val Glu Val
                        215
                                            220
Asn Pro Lys Ser Glu Asp Ala Gly Gly Ala Glu Gly Glu Thr Pro His
                    230
Met Leu Leu Arg Pro His Val Phe Met Pro Glu Val Thr Pro Asp Met
                245
                                    250
Asp Tyr Leu Pro Arg Val Pro Asn Gln Gly Ile Ile Asn Pro Met
                                265
           260
Leu Ser Asp Glu Thr Asn Ile Cys Asn Gly Lys Pro Val Asp Gly Leu
                           280
Thr Thr Leu Arg Asn Gly Thr Leu Val Ala Phe Arg Gly His Tyr Phe
                                            300
                       295
Trp Met Leu Ser Pro Phe Ser Pro Pro Ser Pro Ala Arg Arg Ile Thr
                    310
                                        315
Glu Val Trp Gly Ile Pro Ser Pro Ile Asp Thr Val Phe Thr Arg Cys
                325
                                    330
Asn Cys Glu Gly Lys Thr Phe Phe Lys Asp Ser Gln Tyr Trp Arg
                                345
Phe Thr Asn Asp Ile Lys Asp Ala Gly Tyr Pro Lys Pro Ile Phe Lys
                           360
Gly Phe Gly Gly Leu Thr Gly Gln Ile Val Ala Ala Leu Ser Thr Ala
                       375
Lys Tyr Lys Asn Trp Pro Glu Ser Val Tyr Phe Phe Lys Arg Gly Gly
                   390
                                        395
Ser Ile Gln Gln Tyr Ile Tyr Lys Gln Glu Pro Val Gln Lys Cys Pro
               405
                                    410
Gly Arg Arg Pro Ala Leu Asn Tyr Pro Val Tyr Gly Glu Met Thr Gln
                                425
Val Arg Arg Arg Phe Glu Arg Ala Ile Gly Pro Ser Gln Thr His
                            440
Thr Ile Arg Ile Gln Tyr Ser Pro Ala Arg Leu Ala Tyr Gln Asp Lys
                       455
                                            460
Gly Val Leu His Asn Glu Val Lys Val Ser Ile Leu Trp Arg Gly Leu
                                        475
                    470
Pro Asn Val Val Thr Ser Ala Ile Ser Leu Pro Asn Ile Arg Lys Pro
               485
                                    490
Asp Gly Tyr Asp Tyr Tyr Ala Phe Ser Lys Asp Gln Tyr Tyr Asn Ile
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           500
Asp Val Pro Ser Arg Thr Ala Arg Ala Ile Thr Thr Arg Ser Gly Gln
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Thr Leu Ser Lys Val Trp Tyr Asn Cys Pro
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<222> 2
<223> Xaa is any amino acid except Pro
<221> VARIANT
<222> 3
<223> Xaa is either Thr or Ser
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Asn Xaa Xaa
<210> 5
<211> 488
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<213> Artificial Sequence
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                                                                        60
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                                                                       120
atcaqcqtqa qqaqaqtqqq agggatttag gatccactga acgtgttaaa cgtcacatac
tgggtgtgcc tgtttaagga gctgactcgg gcttccgtaa ggcgcgcttg atcctcggag
                                                                       180
gggggggtgg acgcgccca agtagaatat acagtgtgtc cgttagaggt ttctgtgcag
                                                                       240
aagtaaaaga taacaagaag aacagaacta aaaagaaacc tacccccaaa ccaccagttg
                                                                      .300
tagatgaagc tggaagtgga ttggacaatg gtgacttcaa ggtcacaact cctgacacgt
                                                                       360
ctaccacca acacaataaa gtcagcacat ctcccaagat cacaacagca aaaccaataa
                                                                       420
                                                                       480
atcccaqacc ccagtcttca cctaattctg atacatctaa agagacgtct ttgacagtga
                                                                       488
ataaagag
<210> 6
<211> 1620
<212> DNA
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cctaccacta tccacaaaag ccctgatgaa tcaactcctg agctttctgc agaacccaca
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ccaaaagctc ttgaaaacag tcccaaggaa cctggtgtac ctacaactaa gactcctgca
                                                                       120
gcgactaaac ctgaaatgac tacaacagct aaagacaaga caacagaaag agacttacgt
                                                                       180
actacacctg aaactacaac tgctgcacct aagatgacaa aagagacagc aactacaaca
                                                                       240
gaaaaaacta ccgaatccaa aataacagct acaaccacac aagtaacatc taccacaact
                                                                       300
caagatacca caccattcaa aattactact cttaaaaacaa ctactcttgc acccaaagta
                                                                       360
actacaacaa aaaagacaat tactaccact gagattatga acaaacctga agaaacagct
                                                                       420
aaaccaaaag acagagctac taattctaaa gcgacaactc ctaaacctca aaagccaacc
                                                                       480
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540 aaaqcaccca aaaaacccac ttctaccaaa aagccaaaaa caatgcctag agtgagaaaa 600 ccaaagacga caccaactcc ccgcaagatg acatcaacaa tgccagaatt gaaccctacc 660 tcaaqaataq caqaaqccat gctccaaacc accaccagac ctaaccaaac tccaaactcc aaactagttg aagtaaatcc aaagagtgaa gatgcaggtg gtgctgaagg agaaacacct 720 780 catatqcttc tcaggcccca tgtgttcatg cctgaagtta ctcccgacat ggattactta ccgagagtac ccaatcaagg cattatcatc aatcccatgc tttccgatga gaccaatata 840 tgcaatggta agccagtaga tggactgact actttgcgca atgggacatt agttgcattc 900 cgaggtcatt atttctggat gctaagtcca ttcagtccac catctccagc tcgcagaatt 960 1020 actgaaqttt qqqqtattcc ttcccccatt gatactgttt ttactaggtg caactgtgaa ggaaaaactt tcttctttaa ggattctcag tactggcgtt ttaccaatga tataaaagat 1080 gcagggtacc ccaaaccaat tttcaaagga tttggaggac taactggaca aatagtggca 1140 1200 gcgctttcaa cagctaaata taagaactgg cctgaatctg tgtatttttt caagagaggt qqcaqcattc aqcaqtatat ttataaacag gaacctgtac agaagtgccc tggaagaagg 1260 cctgctctaa attatccagt gtatggagaa atgacacagg ttaggagacg tcgctttgaa 1320 1380 cgtgctatag gaccttctca aacacacacc atcagaattc aatattcacc tgccagactg gcttatcaag acaaaggtgt ccttcataat gaagttaaag tgagtatact gtggagagga 1440 cttccaaatg tggttacctc agctatatca ctgcccaaca tcagaaaacc tgacggctat 1500 gattactatg ccttttctaa agatcaatac tataacattg atgtgcctag tagaacagca 1560 agagcaatta ctactcgttc tgggcagacc ttatccaaag tctggtacaa ctgtccttag 1620 <210> 7 <211> 24 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence; note = synthetic construct <400> 7 24 atggcatgga aaacacttcc catt <210> 8 <211> 24 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence; note = synthetic construct <400> 8 24 ctaaggacag ttgtaccaga cttt <210> 9 <211> 4 <212> PRT <213> Artificial Sequence <220> <223> Description of Artificial Sequence; note = synthetic construct

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Phe Ala Cys Glu
<210> 10
<211> 8
<212> PRT
<213> Artificial Sequence
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<400> 10
Val Lys Asp Asn Lys Lys Asn Arg
                 5
<210> 11
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence; note =
      synthetic construct
<221> VARIANT
<222> 8
<223> Xaa is either Thr or Pro
<400> 11
Lys Glu Pro Ala Pro Thr Thr Xaa
1 5
2
5
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